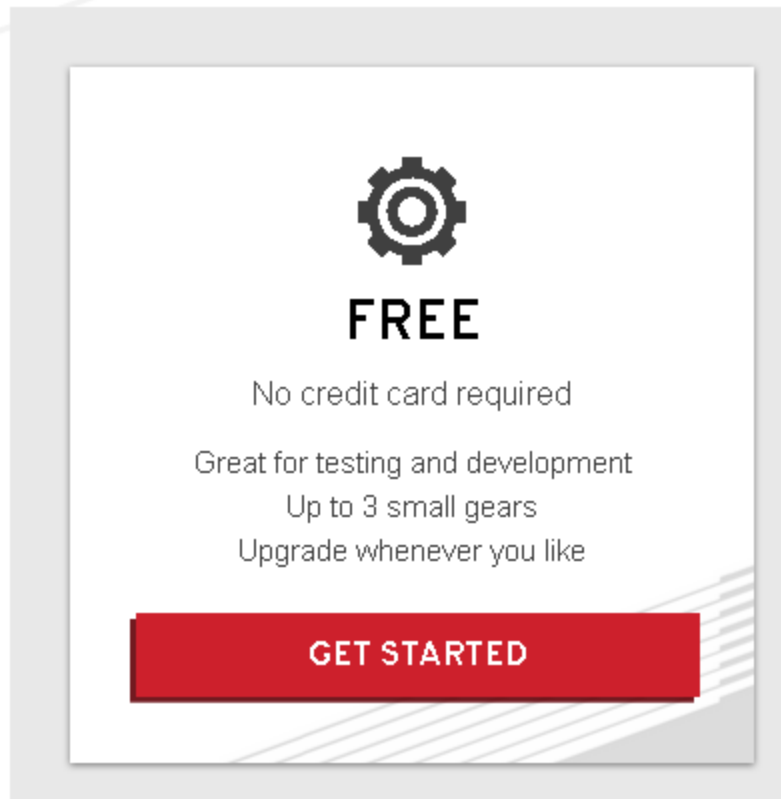


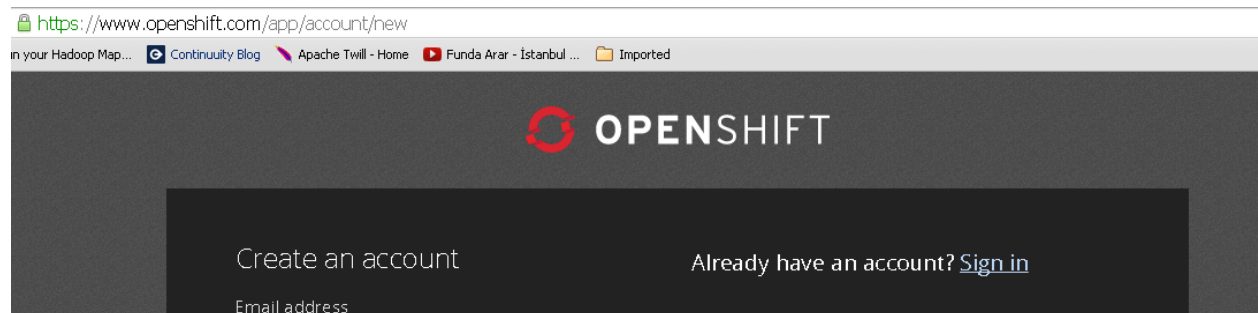
## (IaaS) (PaaS) Red Hat Open Shift

### OpenShift Online Pricing



#### Step 1

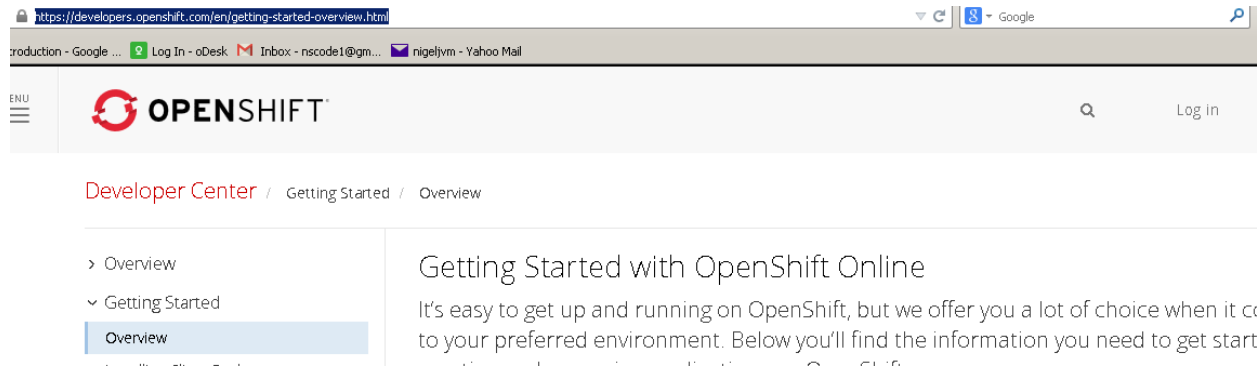
sign up for an account at <https://www.openshift.com/app/account/new>



verify account from email redirects to this page

<https://developers.openshift.com/en/getting-started-overview.html>

<https://openshift.redhat.com/app/console/applications>



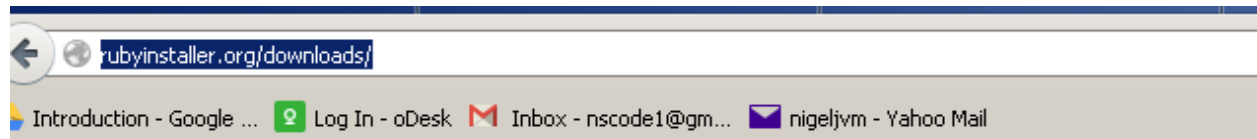
You can create up to 3 applications with your free resources, but to use all 3 gears for one application, you can create a [scalable app](#).

Openshift provides 3 small gears per user account. Each gear has 512MB of memory (small gear) and 1GB of storage. It is not possible to combine them to make one gear with 1.5GB of memory and 3GB of storage.

## Step 2

Command Line Tools (RHC)

1. <http://rubyinstaller.org/downloads/>  
version 1.9.3






## Downloads

### RubyInstallers

### Archives»

Not sure what version to download? Please read the right column for recommendations.

-  [Ruby 2.0.0-p481](#)
-  [Ruby 2.0.0-p481 \(x64\)](#)
-  [Ruby 1.9.3-p545](#)

### Step 3

Install Git

<http://git-scm.com/download/win>

### Step 4

Install Red Hat command line tools

C:Files> gem install rhc

```
Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\n>gem install rhc
Fetching: net-ssh-2.9.1.gem (100%)
Fetching: net-scp-1.2.1.gem (100%)
Fetching: net-ssh-gateway-1.2.0.gem (100%)
Fetching: net-ssh-multi-1.2.0.gem (100%)
Fetching: archive-tar-minitar-0.5.2.gem (100%)
Fetching: highline-1.6.21.gem (100%)
Fetching: commander-4.2.0.gem (100%)
Fetching: httpclient-2.4.0.gem (100%)
Fetching: open4-1.3.4.gem (100%)
Fetching: rhc-1.29.7.gem (100%)
=====

If this is your first time installing the RHC tools, please run 'rhc setup'
=====

Successfully installed net-ssh-2.9.1
Successfully installed net-scp-1.2.1
Successfully installed net-ssh-gateway-1.2.0
Successfully installed net-ssh-multi-1.2.0
Successfully installed archive-tar-minitar-0.5.2
Successfully installed highline-1.6.21
Successfully installed commander-4.2.0
Successfully installed httpclient-2.4.0
Successfully installed open4-1.3.4
Successfully installed rhc-1.29.7
10 gems installed
Installing ri documentation for net-ssh-2.9.1...
Installing ri documentation for net-scp-1.2.1...
Installing ri documentation for net-ssh-gateway-1.2.0...
Installing ri documentation for net-ssh-multi-1.2.0...
Installing ri documentation for archive-tar-minitar-0.5.2...
Installing ri documentation for highline-1.6.21...
Installing ri documentation for commander-4.2.0...
Installing ri documentation for httpclient-2.4.0...
Installing ri documentation for open4-1.3.4...
Installing ri documentation for rhc-1.29.7...
Installing RDoc documentation for net-ssh-2.9.1...
Installing RDoc documentation for net-scp-1.2.1...
Installing RDoc documentation for net-ssh-gateway-1.2.0...
Installing RDoc documentation for net-ssh-multi-1.2.0...
Installing RDoc documentation for archive-tar-minitar-0.5.2...
Installing RDoc documentation for highline-1.6.21...
Installing RDoc documentation for commander-4.2.0...
Installing RDoc documentation for httpclient-2.4.0...
Installing RDoc documentation for open4-1.3.4...
Installing RDoc documentation for rhc-1.29.7...

C:\Users\n>
```

rhc setup

```
use the server for OpenShift Online: openshift.redhat.com.
Enter the server hostname: !openshift.redhat.com!

You can add more servers later using 'rhc server'.

Login to openshift.redhat.com: nscodel@gmail.com
Password: *****
```

generates a ssh key and uploads it

```
generate a token now? <yes/no> yes
Generating an authorization token for this client ... lasts about 1 month
Saving configuration to C:\Users\n\.openshift\express.conf ... done
No SSH keys were found. We will generate a pair of keys for you.

Created: C:/Users/n/.ssh/id_rsa.pub

Your public SSH key must be uploaded to the OpenShift server to access code.
Upload now? <yes/no>
yes
```

create a namespace for your applications

```
Please enter a namespace <letters and numbers only> !<none>!: eduonix
Your domain 'eduonix' has been successfully created
```

finally will list all the applications you can create

```
Run 'rhc create-app' to create your first application.

Do-It-Yourself 0.1          rhc create-app <app name> diy-0.1
JBoss Application Server 7   rhc create-app <app name> jbossas-7
JBoss Data Virtualization 6 rhc create-app <app name>
                             jboss-dv-6.0.0
JBoss Enterprise Application Platform 6 rhc create-app <app name> jbosseap-6
Jenkins Server              rhc create-app <app name> jenkins-1
Node.js 0.10                rhc create-app <app name> nodejs-0.10
PHP 5.3                     rhc create-app <app name> php-5.3
PHP 5.4                     rhc create-app <app name> php-5.4
PHP 5.4 with Zend Server 6.1 rhc create-app <app name> zend-6.1
Perl 5.10                   rhc create-app <app name> perl-5.10
Python 2.6                  rhc create-app <app name> python-2.6
Python 2.7                  rhc create-app <app name> python-2.7
Python 3.3                  rhc create-app <app name> python-3.3
Ruby 1.8                    rhc create-app <app name> ruby-1.8
Ruby 1.9                    rhc create-app <app name> ruby-1.9
Ruby 2.0                    rhc create-app <app name> ruby-2.0
Tomcat 6 <JBoss EWS 1.0>     rhc create-app <app name> jbossews-1.0
Tomcat 7 <JBoss EWS 2.0>     rhc create-app <app name> jbossews-2.0
Vert.x 2.1                  rhc create-app <app name>
                             jboss-vertx-2.1
```

## Step 5

Create an application with a cartridge

```
rhc app create eduonix diy-0.1
```

```

C:\Users\n>rhc app create eduonix diy-0.1
Application Options
-----
Domain:      eduonix
Cartridges:  diy-0.1
Gear Size:   default
Scaling:     no

Creating application 'eduonix' ... done

Disclaimer: This is an experimental cartridge that provides a way to try unsupported languages, frameworks, and middleware on OpenShift.

Waiting for your DNS name to be available ... done

Cloning into 'eduonix'...
The authenticity of host 'eduonix-eduonix.rhcloud.com (54.80.213.211)' can't be established.
RSA key fingerprint is cf:ee:77:cb:0e:fc:02:d7:72:7e:ae:80:c0:90:88:a7.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'eduonix-eduonix.rhcloud.com,54.80.213.211' (RSA) to the list of known hosts.
remote: Counting objects: 25, done.
remote: Compressing objects: 100% (19/19), done.
remote: Total 25 (delta 2), reused 25 (delta 2)
Receiving objects: 100% (25/25), 19.29 KiB | 0 bytes/s, done.
Resolving deltas: 100% (2/2), done.
Checking connectivity... done.

Your application 'eduonix' is now available.

URL:      http://eduonix-eduonix.rhcloud.com/
SSH to:    540f88a34382ec93160003ee@eduonix-eduonix.rhcloud.com
Git remote: ssh://540f88a34382ec93160003ee@eduonix-eduonix.rhcloud.com/~git/eduonix.git/
Cloned to: C:/Users/n/eduonix

Run 'rhc show-app eduonix' for more details about your app.

C:\Users\n>

```

## Step 6

### Code Repository structure

there's a folder that's quite interesting for us -.openshift/action\_hooks:

These are the scripts that OpenShift uses for building, deploying, starting and stopping our app. These scripts are executed on the remote OpenShift server.

`.openshift/action_hooks/pre_build` gets run every git push before the build

`.openshift/action_hooks/build` gets run every git push

`.openshift/action_hooks/start` gets run to start your application

theres more

## Step 7

### Work flow

1. Add framework of choice to your repo.
2. Modify `.openshift/action_hooks/`
4. Commit and push your changes.

## Step 8

### Environment Variables

OpenShift provides several environment variables to reference for ease of use. The following list are some common variables but far from exhaustive and they change all the time: use `printenv` to see all the current

```
eduonix-eduonix.rhcloud.com 540f88a34382ec93160003ee]\> printenv
PENSIFT_DIY_IP=127.11.217.129
PENSIFT_SECRET_TOKEN=EoX_X7pw_1i7HK0NfLG6JGQKowaQFQnj30cujejAlhymeUrcbZJtt1PjoxaliUSS6hDSsMNqgemd6L-aLfhMhZt9yIm
ARKIY_2FTJQ7dn_rzf0i3KpLH
PENSIFT_GEAR_MEMORY_MB=512
PENSIFT_DIY_IDENT=redhat:diy:0.1:0.0.13
ELINUX_ROLE_REQUESTED=
EM_HOME=/var/lib/openshift/540f88a34382ec93160003ee/.gem
PENSIFT_DEPLOYMENT_TYPE=git
ERM=cygwin
HELL=/bin/bash
PENSIFT_LOG_DIR=/var/lib/openshift/540f88a34382ec93160003ee/app-root/logs/
MPDIR=/tmp/
SSH_CLIENT=79.100.227.175 58070 22
PENSIFT_DEPLOYMENTS_DIR=/var/lib/openshift/540f88a34382ec93160003ee/app-deployments/
PENSIFT_TMP_DIR=/tmp/
ELINUX_USE_CURRENT_RANGE=
PENSIFT_REPO_DIR=/var/lib/openshift/540f88a34382ec93160003ee/app-root/runtime/repo/
PENSIFT_HOMEDIR=/var/lib/openshift/540f88a34382ec93160003ee/
PENSIFT_DIY_LOG_DIR=/var/lib/openshift/540f88a34382ec93160003ee/app-root/logs/
PENSIFT_GEAR_NAME=eduonix
PENSIFT_PYPI_MIRROR_URL=http://mirror1.ops.rhcloud.com/mirror/python/web/simple
SSH_TTY=/dev/pts/0
PENSIFT_APP_SSH_PUBLIC_KEY=/var/lib/openshift/540f88a34382ec93160003ee/.openshift_ssh/id_rsa.pub
PENSIFT_CLOUD_DOMAIN=rhcloud.com
USER=540f88a34382ec93160003ee
D_LIBRARY_PATH=
MP_DIR=/tmp/
MOUT=300
PENSIFT_BUILD_DEPENDENCIES_DIR=/var/lib/openshift/540f88a34382ec93160003ee/app-root/runtime/build-dependencies/
MAIL=/var/mail/540f88a34382ec93160003ee
PATH=/bin:/usr/bin:/usr/sbin
WD=/var/lib/openshift/540f88a34382ec93160003ee
LANG=en_US.UTF-8
PENSIFT_APP_DNS=eduonix-eduonix.rhcloud.com
PENSIFT_PRIMARY_CARTRIDGE_DIR=/var/lib/openshift/540f88a34382ec93160003ee/diy/
PENSIFT_GEAR_DNS=eduonix-eduonix.rhcloud.com
PS1=[eduonix-eduonix.rhcloud.com \w]\>
PENSIFT_CARTRIDGE_SDK_BASH=/usr/lib/openshift/cartridge_sdk/bash/sdk
ELINUX_LEVEL_REQUESTED=
PENSIFT_APP_SSH_KEY=/var/lib/openshift/540f88a34382ec93160003ee/.openshift_ssh/id_rsa
HLVL=1
```

there are more

